ABSTRACT OF THE DISCLOSURE

A receiver comprising: an antenna which receives a radio signal including N possible symbols $\{c_1^{(n)}, c_2^{(n)}, \cdots c_{M-1}^{(n)}, c_M^{(n)}\}$, an N correlation units which are provided corresponding to the N possible symbols, respectively, each correlation unit detecting the degree of correlation with the radio signal received by the antenna, and a symbol determination unit which determines the symbol included in the radio signal received by the antenna based on the degree of correlation detected by the N correlation units. The N correlation units detect the degree of correlation between the radio signal received by the antenna and the N possible symbols represented by M chips $\{\alpha_0 c_1^{(n)}, \alpha_0 c_2^{(n)}+\alpha_1 c_1^{(n)}, \ldots, \alpha_0 c_{M-1}^{(n)}+\alpha_1 c_{M-2}^{(n)}, \alpha_0 c_M^{(n)}+\alpha_1 c_{M-1}^{(n)}\}$.